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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,401	08/06/2003	Cornelis F. Van Egmond	2003B081	8593

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EXXONMOBIL CHEMICAL COMPANY
5200 BAYWAY DRIVE
P.O. BOX 2149
BAYTOWN, TX 77522-2149

EXAMINER

CHEUNG, WILLIAM K

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/635,401

Applicant(s)

VAN EGMOND ET AL.

Examiner

William K Cheung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2004.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-131 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-131 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 080603.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed August 6, 2003 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. Further, copending applications listed in IDS are not prior art.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1-131 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Janssen et al. (US 6,121,503).

*The invention of claims 1-29 relates to a **propylene-containing composition**, comprising:*

- (a) at least **95 volume percent propylene**;*
- (b) at least **0.5 volume percent propane**;*
- (c) at least **10 vppm ethane**;*
- (d) at least **1 vppm ethylene**; and*
- (e) from **0.5 to 2 vppm dimethyl ether**.*

*The invention of claims 30-37 relates to a **propylene-containing composition**, comprising:*

- (a) at least **95 volume percent propylene**;*
- (b) from **0.5 to about 5 volume percent propane**;*
- (c) at least **0.02 vppm C4+ hydrocarbons**;*
- (d) at least **0.01 vppm methanol**; and*
- (e) from **0.5 vppm to 2 vppm dimethyl ether**.*

*The invention of claims 38-46 relates to a **propylene-containing composition**, comprising:*

- (a) at least **95 volume percent propylene**;*
- (b) from **0.5 to about 5 volume percent propane**;*
- (c) at least **10 vppm ethane**;*
- (d) at least **0.05 vppm acetylene**; and*
- (e) from **0.5 to 2 vppm dimethyl ether**.*

*The invention of claims 47-55 relates to a **propylene-containing composition**, comprising:*

- (a) at least **95 volume percent propylene**;*
- (b) from **0.5 to about 5 volume percent propane**;*
- (c) at least **10 vppm ethane**;*

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(d) at least **0.02 vppm C4+ hydrocarbons**; and

(e) from **0.5 to 2 vppm dimethyl ether**.

The invention of claims 56-64 relates to a **propylene-containing composition**, comprising:

(a) at least **95 volume percent propylene**;

(b) from **0.5 to about 5 volume percent propane**;

(c) at least **0.01 vppm water**;

(d) at least **0.01 vppm methanol**; and

(e) from **0.5 to 2 vppm dimethyl ether**.

The invention of claims 65-99 relates to a **propylene-containing composition**, wherein **the composition is formed by a process** comprising the steps of:

(a) contacting an oxygenate with a molecular sieve catalyst in a reactor under conditions effective to form an effluent stream comprising **propylene, propane, ethylene, dimethyl ether and ethane**;

(b) separating the effluent stream in a first separation unit into a first fraction and a second fraction, wherein the first fraction contains a majority of the ethane, ethylene and propylene, and wherein the second fraction contains **a majority of the dimethyl ether**; and

(c) separating at least a portion of the first fraction into a third fraction and the propylene-containing composition, wherein the third fraction contains a majority of the

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*ethylene and ethane present in the at least a portion of the first fraction, and wherein the propylene-containing composition comprises at least **95 volume percent propylene**, at least **0.5 volume percent propane**, at least **10 vppm ethane**, at least **1 vppm ethylene**, and from **0.5 to 2 vppm dimethyl ether**.*

*The invention of claims 100-131 relates to a **propylene-containing composition**, wherein **the composition is formed by a process** comprising the steps of:*

*(a) contacting an oxygenate with a molecular sieve catalyst in a reactor under conditions effective to form an effluent stream comprising **propylene, propane, ethylene, DME and ethane**;*

(b) separating the effluent stream in a first separation unit into a first fraction and a second fraction, wherein the first fraction contains a majority of the ethane and ethylene, and wherein the second fraction contains a majority of the DME, propane and propylene; and

*(c) separating at least a portion of the second fraction into the propylene-containing composition and a third fraction wherein the propylene-containing composition comprises at least **95 volume percent propylene**, at least **0.5 volume percent propane**, at least **10 vppm ethane**, at least **1 vppm ethylene**, and from **0.5 to 2 vppm DME**, and wherein the third fraction contains a majority of the propane and DME present in the second fraction.*

Janssen et al. (abstract ; col. 2, line 26-40; col. 12, claims 1-7) disclose polypropylene resin compositions comprising 95 to 99.5 percent of propylene and 1 to 5 percent or lower of propane. Although Janssen et al. are silent on the type and the amount of impure ingredients in the disclosed polypropylene, in view of the substantially identical oxygenate feed starting material and processing conditions (col. Col. 3, line 25 to col. 5, line 40; col. 8, line 56 to col. 12, line 16), the examiner has a reasonable basis to believe that the claimed specific range amount of impurities such as ethane, ethylene, dimethyl ether, acetylene, methyl acetylene, propadiene, C4+ hydrocarbons, methanol, water, hydrogen, arsine, phosphine are inherently possessed in Janssen et al. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

Regarding claims 65-131 which claim a propylene-containing composition formed by a process, applicants must recognize that “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Primary Examiner

February 19, 2005

**WILLIAM K. CHEUNG
PRIMARY EXAMINER**